

DETAILED ACTION

The Reply filed by Applicants on 06/01/2011 is hereby acknowledged. The cancellation of claims 1-43 without prejudice is hereby acknowledged. The addition of new claims 44-62 is hereby acknowledged. Applicants arguments regarding the restriction requirement is found persuasive in light of the new claims submitted and pending claims 44-62 will be examined herein on the merits. However, since the claim amendments are responsible for the withdrawal of the restriction requirement, as well as the new grounds of rejection set forth below this office action is being made FINAL.

Claim Rejections - 35 USC § 112

Applicant's arguments, see pages 9-10 of response, filed 06/01/2011, with respect to enablement have been fully considered and are persuasive when taken together with the claim amendments. The rejection of claims 36 and 37 under 35 USC 112 1st paragraph for lacking enablement has been withdrawn.

Claim Rejections - 35 USC § 102

Applicant's arguments, see pages 6-9, filed on 06/01/2011, with respect to anticipation have been fully considered and are persuasive when taken together with the claim amendments. The rejection of the claims under 35 USC 102 as being anticipated has been withdrawn.

Claim Rejections - 35 USC § 103

Applicant's arguments, see pages 6-9, filed on 06/01/2011, with respect to obviousness have been fully considered and are persuasive when taken together with

the claim amendments. The rejection of the claims under 35 USC 103 as being obvious has been withdrawn.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 because 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 44-46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are broadly drawn to a sucrose synthase. However, since the sucrose synthase of SEQ ID NO:12 could theoretically be found in nature, the claims do not distinguish the instant polypeptide from those that might be naturally occurring. Accordingly, the claims are drawn to a product of nature, which is non-statutory subject matter.

See *Diamond v. Chakrabarty*, 447 U.S. 303 (1980), *Funk Bros. Seed Co. v. Kalo inoculant Co.*, 233 U.S. 127 (1948), and *American Fruit Growers v. Brogdex Co.*, 283 U.S. 2 (1931).

This rejection can be overcome by amendment of the claims to indicate that the polypeptide is ---isolated---.

Claim Rejections - 35 USC § 112-4th paragraph

The following is a quotation of the fourth paragraph of 35 U.S.C. 112:

Subject to the [fifth paragraph of 35 U.S.C. 112], a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

Claim 45 is rejected under 35 U.S.C. 112, 4th paragraph, as being of improper dependent form for failing to further limit the subject matter of the claim upon which it depends, or for failing to include all the limitations of the claim upon which it depends.

Claim 45 recites a sucrose synthase that "consists essentially of SEQ ID NO:12", whereas Claim 44 requires the sucrose synthase to comprise all of SEQ ID NO:12. The open language of claim 45 fails to further limit claim 44.

Applicant may cancel the claim, amend the claim to place the claim in proper dependent form, rewrite the claim in independent form, or present a sufficient showing that the dependent claim complies with the statutory requirements.

Claims 47-52 are objected to for depending from rejected claims but would be allowable if rewritten in independent form.

Claims 53-62 are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT T. PAGE whose telephone number is (571)272-5914. The examiner can normally be reached on Monday-Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571)-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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